We Claim

1. A garment for controlling body temperature of the wearer comprising (a) an outer layer forming the outersurface of the garment made of polymeric fabric net (b) an inner layer of polymeric fabric tricot in contact with the skin of the wearer wherein the outer and inner layers of the garment are separated there between by a plurality of tubes configured to circulate a heat transfer fluid across desired areas of the body of the wearer through atleast one inlet and atleast one outlet operably connected to a suitable valve means to selectively control the supply of the heat transfer fluid to and from the heat transfer fluid reservoir, wherein the garment is a tri-component fabric system and the said outer and inner layers are made of biocompatible material and coated with an anti-microbial agent.

2. The garment as claimed in claim 1, wherein the tubes are tied to the polymeric fabric net by a polymeric thread.

3. The garment as claimed in claim 1, wherein, one inlet of the tube is connected to an inlet manifold and atleast one outlet of the tube is connected to an outlet manifold by Quick Connect and Disconnect Couplings (QCDC).

4. The garment as claimed in claim 1, wherein the tube is a polymeric tubes and plasticizer free.

5. The garment as claimed in claim 1, wherein the total tube length is 60-90 m.

6. The garment as claimed in claim 1, wherein the tubes are arranged in sections of parallel arrays.

7. The garment as claimed in claim 1, wherein the distance between two parallel tubes is 1.5 to 3cm.

8. The garment as claimed in claim 1, wherein the heat transfer fluid is water.

9. The garment as claimed in claim 7, wherein the cooling is achieved by circulating chilled water in the temperature range of 5-25^{o}C and heating is achieved by circulating hot water in the temperature range of 30-50^{o}C.

10. The garment as claimed in claim 1, wherein the heat transfer fluid flow rate is 50 – 1000 ml/min.

11. The garment as claimed in claim 1, wherein the pressure drop of the heat transfer fluid flow rate is 0.1 – 1.0 bar.

12. The garment as claimed in claim 1, wherein the total weight of the garment is 1000-3000g.

13. A method of fabricating a garment for controlling body temperature of the wearer comprising (a) an outer layer forming the outer surface of the garment made of polymeric fabric net (b) an inner layer of polymeric fabric tricot in contact with the skin of the wearer wherein the outer and inner layers of the garment are separated there between by a plurality of tubes configured to circulate a heat transfer fluid across desired areas of the body of the wearer through atleast one inlet and atleast one outlet operably connected to a suitable valve means to selectively control the supply of the heat transfer fluid to and from the heat transfer fluid reservoir, wherein the garment is a tri-component fabric system and the said outer and inner layers are made of biocompatible material and coated with an anti-microbial agent.

14. The method as claimed in claim 13, wherein one inlet of the tube is connected to an inlet manifold and atleast one outlet of the tube is connected to an outlet manifold by Quick Connect and Disconnect Couplings (QCDC).

15. The method as claimed in claim 12, wherein the cooling is achieved by circulating chilled water in the temperature range of 5-25^{o}C and heating is achieved by circulating hot water in the temperature range of 30-50^{o}C.

16. The garment as claimed in claim 1, wherein the heat transfer fluid flow rate is 50 – 1000 ml/min.

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--Digitally Signed--

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